

## LISTING OF CLAIMS

1. (Previously presented) A system for automatically converting checks to Automated Clearing House (ACH) debits, comprising:

5 means for reading a Magnetic Ink Character Recognition (MICR) line in a check at a point where said check is presented;

if said reading the MICR line is successful, then, prior to parsing said MICR line:

10 means for automating a determination process that determines, by applying various rules and by using data stored in a database, if said check is eligible to be converted to an ACH debit, wherein an eligible check is defined as a consumer check coupled with means for a biller associated with said check providing notice to said consumer; and

15 means for parsing said MICR line for creating said ACH debit by a financial institution that issued said check, when said check can be converted to said ACH debit; and

means for processing said check as a normal check, when said check cannot be converted to said ACH debit.

20 2. (Previously presented) A method for automatically converting checks to Automated Clearing House (ACH) debits, comprising the steps of:

reading a Magnetic Ink Character Recognition (MICR) line in a check at a point where said check is presented;

25 if said reading the MICR line is successful, then, prior to parsing said MICR line:

automating a determination process that determines, by applying various rules and by using data stored in a database, if said check is eligible to be converted to an ACH debit, wherein an eligible check is defined as a consumer check coupled with providing means for a biller associated with said check providing notice to said consumer; and

parsing said MICR line for creating said ACH debit by a financial institution that issued said check, when said check can be converted to said ACH debit; and

      processing said check as a normal check, when said check cannot be converted to said ACH debit.

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3. (Previously presented)    A method on a network for providing check truncation decision processing logic for Automated Clearing House (ACH) conversion applications coupled to said network, said method comprising the steps of:

      for electronic check representment, after receiving administrative return data 10 and acting as a customer's ACH Originating Depository Financial Institution (ODFI), a financial institution applying check truncation decision processing logic, said logic comprising the steps of:

          converting said received administrative return data into an ACH debit; and  
          using said administrative return informational data for updating;

      for point of sale, applying check truncation decision processing logic to a 15 check that was successfully scanned, said logic residing on equipment at a centralized location for determining and sending confirmational information to a cashier either that said check can be converted to an ACH debit or that said check must be deposited;

      applying check truncation decision processing logic for identifying ineligible 20 checks at two points in lockbox processing, wherein an eligible check is defined as a consumer check coupled with providing means for a biller associated with said check providing notice to said consumer:

          during mail opening process, identifying and separating non-standard checks, money orders, travelers checks, and the like; and

      at a first pass through data capture equipment control point, for 25 determining and pocketing as deposit ineligible checks.

4. (Original)    The method of Claim 3, further comprising any of, or any combination of the steps of:

mail opening equipment using basic Yes/No logic to detect inconsistencies in check sizes and in MICR lines lengths;

mail opening equipment not looking at R/T numbers or MICR line detail;

providing software upgrades, developed and maintained by electronic check

5 experts, to customers for outsorting ineligible checks; wherein processing information programmed into said software is driven by a particular consumer's billing account number, R/T number, and account number from the check; and

providing logic for parsing routines for obtaining said consumer's billing account number, R/T number, and account number from the check.

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5. (Original) The method of Claim 3, further comprising the steps of:

updating customer software continuously for identifying and converting new exception checks; and

15 providing automated interfaces that notify and update customer platforms for said identified and converted new exception checks as they appear.

6. (Original) The method of Claim 3, wherein customer software maintenance takes place on the following three levels:

Institutional Routing/Transit Number;

20 Routing/Transit Number and Account Number; and

Consumer Billing ID.

7. (Original) The method of Claim 6, wherein said levels are listed from highest level to lowest level.

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8. (Original) The method of Claim 3, wherein said step of updating further comprises the steps of:

as a customer encounters a return check having an image, reading said return check data, examining said image data, and determining changes needed for 30 representing an ACH transaction successfully; and

storing any changes needed for successfully converting checks going forward.

9. (Previously presented) An apparatus on a network for providing check truncation decision processing logic for Automated Clearing House (ACH) conversion applications coupled to said network, said apparatus comprising:

for electronic check representment, after receiving administrative return data and acting as a customer's ACH Originating Depository Financial Institution (ODFI), means for a financial institution applying check truncation decision processing logic, said logic comprising the steps of:

converting said received administrative return data into an ACH debit; and using said administrative return informational data for updating;

for point of sale, means for applying check truncation decision processing logic to a check that was successfully scanned, said logic residing on equipment at a centralized location for determining and sending confirmational information to a cashier either that said check can be converted to an ACH debit or that said check must be deposited; and

means for applying check truncation decision processing logic for identifying ineligible checks at two points in lockbox processing, wherein an eligible check is defined as a consumer check coupled with providing means for a biller associated with said check providing notice to said consumer:

during mail opening process, identifying and separating non-standard checks, money orders, travelers checks, and the like; and

at a first pass through data capture equipment control point, for determining and pocketing as deposit ineligible checks.

10. (Previously presented) The apparatus of Claim 9, further comprising any of, or any combination of:

means for mail opening equipment using basic Yes/No logic to detect inconsistencies in check sizes and in Magnetic Ink Character Recognition (MICR) line lengths;

5 means for mail opening equipment not looking at Routing/Transit (R/T) numbers or MICR line detail;

software upgrades, developed and maintained by electronic check experts, to customers for outsorting ineligible checks; wherein processing information programmed into said software is driven by a particular consumer's billing account number, R/T number, and account number from the check; and

10 logic for parsing routines for obtaining said consumer's billing account number, R/T number, and account number from the check.

11. (Original) The apparatus of Claim 9, further comprising:

15 means for updating customer software continuously for identifying and converting new exception checks; and

automated interfaces that notify and update customer platforms for said identified and converted new exception checks as they appear.

12. (Original) The apparatus of Claim 9, wherein customer software maintenance 20 takes place on the following three levels:

Institutional Routing/Transit Number;

Routing/Transit Number and Account Number; and

Consumer Billing ID.

25 13. (Original) The apparatus of Claim 12, wherein said levels are listed from highest level to lowest level.

14. (Original) The apparatus of Claim 9, wherein said means for updating further comprises:

as a customer encounters a return check having an image, means for reading said return check data, examining said image data, and determining changes needed for representing an ACH transaction successfully; and

means for storing any changes needed for successfully converting checks  
5 going forward.

15. (Previously presented) An apparatus for remittance processing with express check conversion on a computer network, said apparatus comprising:

means for a consumer receiving an invoice and a conversion notification;  
10 means for said consumer mailing a payment coupon with a corresponding check to a remittance processing center;

a repository for receiving and processing said payment coupon and said corresponding check;

means for sending said received and processed payment coupon and said 15 corresponding check to a remittance processing center comprising at least one computer processor, said remittance processing center further comprising:

means for converting successfully scanned eligible consumer checks to an associated electronic format, wherein an eligible check is defined as a consumer check coupled with providing means for a biller associated with said check providing 20 notice to said consumer;

means for creating an electronic file for said converted checks;

means for depositing ineligible checks at a bank; and

means for managing storage and retrieval of image data corresponding to said converted checks; and

25 an associated financial institution further comprising:

means for Automated Clearing House (ACH) file processing and settlement;

means for performing account maintenance;

means for handling administrative returns; and

30 means for providing customer service.

16. (Original) The apparatus of Claim 15, wherein said repository is a company or a lockbox.

5 17. (Original) The apparatus of Claim 15, wherein ineligible checks are deposited at a second financial institution different from said associated financial institution.

18. (Original) The apparatus of Claim 15, further comprising:

10 a third party site for opening mail and processing checks.

19. (Original) The apparatus of Claim 15, said remittance processing center further comprising:

15 means for opening envelopes;

means for imaging check;

means for determining payment amount;

means for associating said check with a customer account; and

means for determining if said check is eligible for conversion.

20 20. (Original) The apparatus of Claim 15, wherein eligible checks comprise:

consumer checks only;

checks having a pre-printed serial number;

checks completed and signed by a consumer; and

checks of any dollar value.

25 21. (Original) The apparatus of Claim 15, wherein ineligible checks comprise:

corporate checks;

third party checks;

credit card checks;

cashier's checks and money orders;

30 government checks;

checks payable in a foreign currency; and  
checks containing an auxiliary on-us field.

22. (previously presented) The apparatus of Claim 15, wherein said remittance  
5 processing center further comprises:

means for sorting checks using a sorting criteria, said sorting criteria further  
comprising:

by a customer database of either a business customer or an opt out  
customer;

10 by size of check, wherein six inches denotes a consumer check and a  
larger size denotes a business check;

by routing transit number on checks and whether said checks are ACH  
accepted or not; and

15 by format of Magnetic Ink Character Recognition (MICR) line and  
existence of auxiliary on-us field.

23. (Previously presented) The apparatus of Claim 22, further comprising:

means for parsing said MICR line; and

options for parsing, said options comprising:

20 using a provided Decisioning Table to make decisions, parse within a  
customer's remittance processing environment, and create a National Automated  
Clearing House Association (NACHA) formatted file;

25 decisioning within a customer's remittance processing environment and  
creating a "Perfect Parsing" data file and transmitting to a corresponding financial  
institution facility for parsing via a Decisioning Table; and

using a third party software Decisioning Table.

24. (Previously presented) The apparatus of Claim 23, wherein said Decisioning Table  
comprises:

a database of bank Routing/Transit (R/T) numbers and account number and MICR parsing formats;

any or all of daily, weekly, and monthly analysis of said financial institution's ACH origination, return, and Notifications of Change (NOC) transaction data, wherein  
5 said analyses comprise means for finding patterns; and

means for automatically loading NOCs and using NOC data to correct future originated transactions.

25. (Original) The apparatus of Claim 23, further comprising:

10 options for using said Decisioning Table, said options comprising:

installing a financial institution facility's database in a customer's platform and using said database to determine eligible and ineligible items, then sending a resulting data file to said financial institution's facility, said facility then parsing said data and creating and processing a NACHA formatted file containing customer transactions;

15 installing a financial institution facility's database in a customer's platform and using it to determine eligible and ineligible item data, then parsing said data and creating and processing a NACHA formatted file containing customer transactions and sending a resulting NACHA formatted file to said financial institution facility, which then performs enhanced modifications and corrections, comprising, but not limited to adding  
20 and deleting leading zeros and performing credit union conversion modifications; and

using third party software for converting items and sending a resulting NACHA formatted file to a financial institution's facility for further processing.

26. (Original) The apparatus of Claim 25, wherein said means for installing said  
25 database in said customer's platform further comprises:

means for incorporating said database into a software program of said customer for assisting in determining which checks are eligible for conversion; and

means for updating said database periodically from a transmitted file sent from said financial institution to said customer.

27. (Original) The apparatus of Claim 15, further comprising:

means for destroying checks, which have been converted to ACH debits, within a predetermined amount of time.

5 28. (Original) The apparatus of Claim 23, further comprising:

means for identifying active versus retired R/T numbers, ACH participating R/T numbers, credit union conversion identification and translation information, check conversion eligibility flags, invalid account lengths, minimum and maximum account lengths, parsing format codes, and trim lead zero indicator;

10 a MICR Translation Table containing a list of masks for all of the possible MICR on-us field variations with a corresponding location of an account number and check serial number, wherein some masks are duplicated on said table with parsing format identifiers matching options available on a bank directory; and

15 means for storing all originated check conversion transactions and corresponding transaction modifications needed for future transactions, wherein said transaction modifications are a result of received notifications of change and administration return processing.

29. (Original) The apparatus of Claim 15, further comprising:

20 means for encoding ineligible checks.

30. (Original) The apparatus of Claim 15, further comprising:

means for automatically drafting checks as needed for collecting checks from R/T numbers that have changed their ACH participation status after an ineligible R/T 25 numbers list was previously loaded.

31. (Original) The apparatus of Claim 15, wherein said means for handling administrative returns further comprises:

means for correcting and re-originating an ACH item;

30 means for correcting and drafting a check;

means for dishonoring said an ACH return; and  
means for taking a copy of an image of a returned item for producing an image replacement document.

5 32. (Original) The apparatus of Claim 15, further comprising:

means for using information from a notification of change (NOC) received for check conversion transactions for modifying a (R/T)/Account/Transaction code for future check conversion transactions, further comprising:

10 means for applying check conversion logic for modifying a (R/T)/Account/Check number; and

means for checking if a matching NOC was received in an associated database, and if a match is found, then using NOC information for setting the R/T, Account, and Transaction code.

15 33. (Original) The apparatus of Claim 32, wherein transactions from said database are removed if a check conversion transaction for a matching RT/Account was not received in a predetermined amount of time.

34. (Original) The apparatus of Claim 32, further comprising:

20 means for allowing inquiries, updates, deletes, and adds to the NOC records in said database for, but not limited to, altering how the RT/Account/Transaction code is changed for check conversion transactions.

35. (Original) The apparatus of Claim 32, further comprising:

25 means for checking if returns are received for a transaction in which a RT/Account/Transaction code is modified because of a previous NOC, such NOC record is deleted from an associated database such that future transactions for such RT/Account/Transaction code are not altered.

36. (Previously presented) A method for remittance processing with express check conversion on a computer network, said method comprising the steps of:

a consumer receiving an invoice and a conversion notification;

said consumer mailing a payment coupon with a corresponding check to a

5 remittance processing center;

providing a repository for receiving and processing said payment coupon and said corresponding check;

sending said received and processed payment coupon and said corresponding check to a remittance processing center comprising at least one 10 computer processor, said remittance processing center further comprising the steps of:

converting successfully scanned eligible consumer checks to an associated electronic format, wherein an eligible check is defined as a consumer check coupled with providing means for a biller associated with said check providing notice to said consumer;

15 creating an electronic file for said converted checks;

depositing ineligible checks at a bank; and

managing storage and retrieval of image data corresponding to said converted checks; and

providing an associated financial institution further comprising:

20 means for Automated Clearing House (ACH) file processing and settlement;

means for performing account maintenance;

means for handling administrative returns; and

means for providing customer service.

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37. (Original) The method of Claim 36, wherein said repository is a company or a lockbox.

38. (Original) The method of Claim 36, wherein ineligible checks are deposited at a

30 second financial institution different from said associated financial institution.

39. (Original) The method of Claim 36, further comprising the step of:  
providing a third party site for opening mail and processing checks.

40. (Original) The method of Claim 36, said remittance processing center further  
5 comprising the steps of:  
opening envelopes;  
imaging check;  
determining payment amount;  
associating said check with a customer account; and  
10 determining if said check is eligible for conversion.

41. (Original) The method of Claim 36, wherein eligible checks comprise:  
consumer checks only;  
checks having a pre-printed serial number;  
15 checks completed and signed by a consumer; and  
checks of any dollar value.

42. (Original) The method of Claim 36, wherein ineligible checks comprise:  
corporate checks;  
20 third party checks;  
credit card checks;  
cashier's checks and money orders;  
government checks;  
checks payable in a foreign currency; and  
25 checks containing an auxiliary on-us field.

43. (Original) The method of Claim 36, wherein said remittance processing center  
further comprises the steps of:  
sorting checks using a sorting criteria, said sorting criteria further comprising:

by a customer database of either a business customer or an opt out customer;

by size of check, wherein six inches denotes a consumer check and a larger size denotes a business check;

5 by routing transit number on checks and whether said checks are ACH accepted or not; and

by format of MICR line and existence of auxiliary on-us field.

44. (Previously presented) The method of Claim 43, further comprising the steps of:

10 parsing said Magnetic Ink Character Recognition (MICR) line; and providing options for parsing, said options comprising:

using a provided Decisioning Table to make decisions, parse within a customer's remittance processing environment, and create a National Automated Clearing House Association (NACHA) formatted file;

15 decisioning within a customer's remittance processing environment and creating a "Perfect Parsing" data file and transmitting to a corresponding financial institution facility for parsing via a Decisioning Table; and

using a third party software Decisioning Table.

20 45. (Previously presented) The method of Claim 44, wherein said Decisioning Table comprises:

a database of bank Routing/Transit (R/T) numbers and account number and MICR parsing formats;

any or all of daily, weekly, and monthly analysis of said financial institution's 25 ACH origination, return, and Notifications of Change (NOC) transaction data, wherein said analyses comprise means for finding patterns; and

means for automatically loading NOCs and using NOC data to correct future originated transactions.

30 46. (Original) The method of Claim 44, further comprising the step of:

providing options for using said Decisioning Table, said options comprising:

installing a financial institution facility's database in a customer's platform and using said database to determine eligible and ineligible items, then sending a resulting data file to said financial institution's facility, said facility then parsing said data and creating and processing a NACHA formatted file containing customer transactions;

installing a financial institution facility's database in a customer's platform and using it to determine eligible and ineligible item data, then parsing said data and creating and processing a NACHA formatted file containing customer transactions and sending a resulting NACHA formatted file to said financial institution facility, which then performs enhanced modifications and corrections, comprising, but not limited to adding and deleting leading zeros and performing credit union conversion modifications; and

using third party software for converting items and sending a resulting NACHA formatted file to a financial institution's facility for further processing.

15 47. (Original) The method of Claim 46, wherein said installing said database in said customer's platform further comprises the steps of:

incorporating said database into a software program of said customer for assisting in determining which checks are eligible for conversion; and

20 updating said database periodically from a transmitted file sent from said financial institution to said customer.

48. (Original) The method of Claim 36, further comprising the step of:

destroying checks, which have been converted to ACH debits, within a predetermined amount of time.

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49. (Original) The method of Claim 44, further comprising the steps of:

identifying active versus retired R/T numbers, ACH participating R/T numbers, credit union conversion identification and translation information, check conversion eligibility flags, invalid account lengths, minimum and maximum account lengths, 30 parsing format codes, and trim lead zero indicator;

providing a MICR Translation Table containing a list of masks for all of the possible MICR on-us field variations with a corresponding location of an account number and check serial number, wherein some masks are duplicated on said table with parsing format identifiers matching options available on a bank directory; and

5           storing all originated check conversion transactions and corresponding transaction modifications needed for future transactions, wherein said transaction modifications are a result of received notifications of change and administration return processing.

10   50. (Original)   The method of Claim 36, further comprising the step of:  
                  encoding ineligible checks.

51. (Original)   The method of Claim 36, further comprising the step of:  
                  automatically drafting checks as needed for collecting checks from R/T  
15   numbers that have changed their ACH participation status after an ineligible R/T  
                  numbers list was previously loaded.

52. (Original)   The method of Claim 36, wherein said handling administrative returns  
                  further comprises the steps of:

20           correcting and re-originating an ACH item;  
                 correcting and drafting a check;  
                 dishonoring said an ACH return; and  
                 taking a copy of an image of a returned item for producing an image  
                 replacement document.

25   53. (Original)   The method of Claim 36, further comprising the step of:  
                  using information from a notification of change (NOC) received for check  
                  conversion transactions for modifying a (R/T)/Account/Transaction code for future check  
                  conversion transactions, further comprising the steps of:

applying check conversion logic for modifying a (R/T)/Account/Check number; and

checking if a matching NOC was received in an associated database, and if a match is found, then using NOC information for setting the R/T, Account, and

5 Transaction code.

54. (Original) The method of Claim 53, wherein transactions from said database are removed if a check conversion transaction for a matching RT/Account was not received in a predetermined amount of time.

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55. (Original) The method of Claim 53, further comprising the step of:

allowing inquiries, updates, deletes, and adds to the NOC records in said database for, but not limited to, altering how the RT/Account/Transaction code is changed for check conversion transactions.

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56. (Original) The method of Claim 53, further comprising the step of:

checking if returns are received for a transaction in which a RT/Account/Transaction code is modified because of a previous NOC, such NOC record is deleted from an associated database such that future transactions for such

20 RT/Account/Transaction code are not altered.